

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Deployment of Wireline Service Offering
Advanced Telecommunications Capability

et al.

CC Docket No. 98-147 *et al.*

COMMENTS
of the
GENERAL SERVICES ADMINISTRATION

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Summary

GSA urges the Commission to adopt the procedures described in the NPRM that will allow incumbent LECs to establish unregulated subsidiaries for offering advanced telecommunications services. The Commission's proposed plan will encourage innovation and investment that should foster deployment of advanced services in urban and rural markets. As structured in the NPRM, the plan should lead to lower prices for advanced services as well as other services provided by LECs.

Moreover, GSA urges the Commission to relieve affiliates established to provide advanced services from participation in the interstate access charge system. GSA explains that application of access charges to firms providing advanced telecommunications services would unnecessarily increase the costs of the services to consumers and also reduce incentives to deploy advanced network technologies that will lead to better advanced services in the future.

GSA also explains that the Commission should strengthen the collocation requirements on incumbent local exchange carriers. For example, new entrants should be allowed to collocate various types of equipment in addition to multiplexers on the incumbent carriers' premises. Incumbent carriers should also be required to offer a variety of collocation options to new entrants.

In addition, the Commission should address several important issues concerning requirements on local loops. First, the Commission should ensure that potential competitors have access to data on the capability of loops to support xDSL technologies. Second, the Commission should adopt regulations requiring unbundling of the local loops so that high-speed data and voice services may be provided by distinct entities, and competitors may have specific access to sub-elements of the loop. Finally, the Commission should adopt pro-competitive standards on loop spectrum management.

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The General Services Administration ("GSA") submits these Comments on behalf of the customer interests of all Federal Executive Agencies ("FEAs") in response to the Commission's Notice of Proposed Rulemaking ("NPRM") released on August 7, 1998. The NPRM invites comments and replies on issues, proposals, and tentative conclusions concerning the provision of advanced telecommunications services by wireline carriers. The NPRM explains that these advanced services employ "high-speed, packet switched networks to offer users the ability to access and transport information across the street or around the globe."¹

I. INTRODUCTION

A. Need for the NPRM

Pursuant to Section 201(a)(4) of the Federal Property and Administrative Services Act of 1949, as amended, 40 U.S.C. 481(a)(4), GSA is vested with the

¹ MO&O and NPRM Introduction and Overview ("Overview"), para. 7.

responsibility to represent the customer interests of the FEAs before Federal and state regulatory agencies. The FEAs require a wide array of voice, data and video telecommunications services throughout the nation. From their perspective as end users, the FEAs have consistently supported the Commission's efforts to bring the benefits of competitive markets to consumers of all telecommunications services.

The Telecommunications Act of 1996 ("1996 Act") mandates that the Commission take the steps necessary to promote innovation and investment in the telecommunications marketplace and to stimulate competition for all telecommunications services.² This proceeding is an initial step by the Commission to implement the pro-competitive goals of the 1996 Act with respect to advanced telecommunications services. To address critical issues concerning advanced telecommunications services, the Commission released the NPRM in conjunction with a Memorandum Opinion and Order ("MO&O"). On the same date, the Commission also issued a Notice of Inquiry in a companion proceeding established to address long-term issues of competition for advanced services.³

The MO&O addresses the applicability of Sections 251 and 271 of the 1996 Act to advanced telecommunications services.⁴ In this order, the Commission concludes that the 1996 Act applies equally to advanced telecommunications services and conventional voice communications.⁵ Therefore, incumbent local exchange carriers

² Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, amending the Communications Act of 1934, 47 U.S.C. § 151 *et seq.* ("1996 Act").

³ Inquiry Concerning the Deployment of Advanced Telecommunications Capability, CC Docket No. 98-146, Notice of Inquiry, released August 7, 1998.

⁴ Overview, paras. 4-11.

⁵ *Id.*, para. 11.

("LECs") have obligations for interconnection, unbundling and resale for the advanced telecommunications services as well.

Since the incumbent LECs have the obligations of Section 251(c) of the 1996 Act with respect to advanced services, the Commission must establish regulatory procedures to ensure that they provide advanced and conventional services in a pro-competitive manner. Many significant regulatory issues, including the requirements for structural separations of activities, collocation, and unbundling, are set forth in the NPRM for comment by carriers and other parties with significant interests in telecommunications.

GSA appreciates the opportunity to submit comments on the issues discussed in the NPRM. Advanced telecommunications services are vital to Federal agencies in performing their functions. These services provide a means for Federal employees to communicate with each other, to access data available from outside sources, and to communicate efficiently with the general public. From this perspective, GSA urges the Commission to take any steps necessary to ensure that incumbent LECs will be active in providing an expanding array of advanced services to workplaces and homes throughout the nation.

B. Structure of Advanced Services

Conventional telecommunications networks composed of coaxial cable, copper wire, microwave links, and circuit switches have been efficient for carrying voice communications.⁶ However, this architecture is not efficient for high speed data communications or interactive video services. Indeed, for subscriber access, the conventional networks employ copper wire pairs that are only capable of carrying data

⁶ *Id.*, para. 28.

at modest bit rates without additional equipment.⁷ Also, the conventional networks are “circuit switched,” so that a fixed path for transmitting information must be maintained from end to end for the entire duration of the message.⁸ This is usually perfectly suitable for voice telephony, but it is not economical for data and other digitally-coded signals for which the transmission requirements are sporadic.

Fortunately, two recent technical developments combine to address both of these constraints. The first is a family of Digital Subscriber Line technologies (“xDSL”) that greatly extends the capabilities of subscriber lines.⁹ The xDSL technologies require two modems for each loop — one at the subscriber’s premises and one at the telephone company’s central office. With the addition of this equipment, a copper wire pair can transmit data at a far greater bit rate.¹⁰ Moreover, users can simultaneously employ the local loop for voice and data messages.

When the xDSL access line carries both voice and data signals, the incumbent LEC must separate the two digital pulse streams from each other at the central office. This function is performed by a device called a digital subscriber line access multiplexer (“DSLAM”).¹¹ The DSLAM and the xDSL at the central office route voice traffic to the public switched network, as before. However, this equipment routes data

⁷ *Id.*

⁸ *Id.*

⁹ The “x” in xDSL is a place holder for the various types of DSL service, including ADSL (asymmetric digital line), HDSL (high-speed digital line) and UDSL (universal digital subscriber line). See NPRM, p.5, n. 5.

¹⁰ While copper wire pair loops generally transmit pulses at a speed of 56,000 bits per second, a loop using a technology in the xDSL family called ADSL can transmit at speeds of several million bits per second.

¹¹ Overview, para. 30.

traffic to a separate network employing the other “new” technology — packet switching.¹²

Packet switching eliminates the requirement to maintain a fixed path for transmission of the entire message. With this technology, a message is divided into segments or groups of pulses that are transmitted and switched together. It is not necessary that all of the packets follow the same transmission path, because each segment contains address information that can be recognized by switches and routers to establish the most efficient path for the segment for the traffic conditions existing at the moment.

Used throughout the network, xDSL and packet switching provide opportunities for incumbent LECs to employ new building blocks for voice, data and video services. At least six incumbent carriers sought to take advantage of these opportunities by petitioning the Commission for regulatory forbearance or other steps to facilitate deployment of advanced services.¹³ The Commission was required to address these petitions in conducting its review of the regulatory procedures for advanced telecommunications services.

C. Rules Established by Memorandum Opinion and Order

The MO&O established significant parameters for the regulation of advanced telecommunications services. The Commission concluded that the pro-competitive provisions of the 1996 Act apply broadly to advanced and conventional services. Specifically, the Commission denied the petitions of incumbent carriers to the extent that they sought forbearance from applying the provisions of the 1996 Act to advanced

¹² Actually, packet switching is not a new technology because it has been employed for Internet transmissions since the inception of that information network 25 or 30 years ago. However, packet switching is finding new applications in a broad array of networks.

¹³ Overview, para. 9.

services.¹⁴ Also, the MO&O required incumbent LECs to meet the interconnection obligations in the 1996 Act with respect to all packet-switched networks.¹⁵

Moreover, in the MO&O the Commission found that the facilities and equipment used by incumbent LECs to provide advanced services should be considered as “network elements” and therefore subject to all requirements of Section 251 of the 1996 Act concerning these facilities. Thus, for example, incumbent LECs must provide other telecommunications carriers with unbundled loops capable of transporting high-speed digital signals, and must offer unbundled access to the equipment used to provide advanced services, subject to technical feasibility constraints.¹⁶

A primary finding of the MO&O is that while some regulatory controls are necessary, incumbent LECs must be able to make decisions to construct and deploy advanced telecommunications services based on the market conditions and sound business plans, rather than regulation.¹⁷ Accordingly, the Commission released an NPRM with proposals and tentative conclusions regarding regulatory conditions that would provide the necessary surveillance without stifling investment or innovation. The most important proposal is an alternative structure for incumbent LECs permitting them to establish separate affiliates to offer advanced telecommunications services. The affiliates would not be subject to the Commission’s regulations governing the carrier’s other interstate telecommunications services.¹⁸

¹⁴ *Id.*, para. 12.

¹⁵ *Id.*, para. 11.

¹⁶ *Id.*

¹⁷ *Id.*, para. 13.

¹⁸ *Id.*

II. INCUMBENT CARRIERS SHOULD BE PERMITTED TO PROVIDE ADVANCED SERVICES THROUGH A FULLY SEPARATED AND NON-REGULATED SUBSIDIARY.

A. The NPRM describes a plan for providing advanced telecommunications services through a fully separated subsidiary.

In the NPRM, the Commission outlines rules that would allow incumbent LECs to provide advanced services through separate subsidiaries that would not be subject to the resale, unbundled access, collocation and other obligations of Section 251(c) of the 1996 Act.¹⁹ The subsidiaries would also be free from price caps or any other form of earnings regulation.²⁰

The NPRM specifies stringent requirements for structural separation:

- the incumbent and affiliate must operate independently from each other;
- all transactions between the two organizations must be at arm's length, in writing, and available for public inspection;
- the two organizations must maintain separate books, records and accounts;
- the organizations must have separate officers, directors, and employees;
- the affiliate may not obtain credit under an arrangement that would permit a creditor to have recourse to the assets of the incumbent;
- the incumbent LEC must not discriminate in favor of its affiliate in the provision of any goods, services, facilities, the release of customer information, or the application of technical standards;
- all network elements, facilities, interfaces and systems provided by the incumbent to the affiliate must also be available to unaffiliated entities; and

¹⁹ NPRM, para. 83.

²⁰ *Id.*

- the affiliate and incumbent must interconnect pursuant to tariff or an interconnection agreement.²¹

The Commission proposes to require that all specific structural separations and nondiscrimination requirements be in place before a subsidiary would be relieved of the regulatory requirements on the incumbent LEC.²² Moreover, if the advanced services affiliate derives an unfair advantage from its relationship with the incumbent at any future time, that affiliate would be viewed “as stepping into the shoes of the incumbent LEC” and would then be subject to all of the requirements that Congress specified for those regulated companies.²³

B. The Commission should adopt the proposed plan because it will increase competition and reduce prices for telecommunications services.

GSA urges the Commission to adopt the procedures described in the NPRM to permit incumbent LECs to establish unregulated subsidiaries for offering advanced telecommunications services. The proposed plan will encourage innovation and investment that should foster deployment of advanced services in urban and rural markets. Moreover, the plan should lead to lower prices for advanced services as well as other services provided by incumbent LECs.

The Commission’s proposed restrictions on the relationships between the incumbent and its affiliate are critical to the success of the plan for two reasons. First, the proposed restrictions present effective roadblocks to anti-competitive activities by either the incumbent or its affiliate. Second, the proposed conditions motivate

²¹ *Id.*, para. 96.

²² *Id.*, para. 83.

²³ *Id.*

incumbent LECs to reduce prices for advanced services provided to end users and interconnection services provided to other carriers.

The proposed plan contains unusually stringent conditions for separation of the incumbent carrier from its affiliate. For example, the plan not only requires distinct sets of officers and directors, but specifies that no employee at any level may be shared. Also, the plan not only requires that all transactions between the two organizations be at arm's length, but also requires that they be available in written form for review by all parties.

Most significantly, the conditions specified in the NPRM should be a driving force in motivating incumbent carriers (and their affiliates) to reduce prices for advanced services as well as other services offered by these firms. In order to market advanced services to the largest possible group of users, the affiliates are encouraged to offer them at the lowest possible price consistent with the costs that they incur. Unbundled network elements that affiliates will acquire from parent companies will be a significant part of the total costs of providing advanced services. Therefore, there is a direct incentive to reduce prices that must be paid by the affiliate for unbundled network elements.

Reductions in charges by the incumbent LECs to their affiliates also reduce the charges that interconnected carriers must pay to incumbent LECs because all network elements and facilities provided to an affiliate must also be available at non-discriminatory terms, *i.e.* at rates no greater than the incumbent charges to its affiliated entities. The consequent price reductions for unbundled network elements will benefit end users in several ways. If competitive LECs pay less for unbundled network elements, they can offer their own services at lower prices to end users. Moreover, lower charges for unbundled elements will motivate additional competitors to enter the

market, expanding the options for end users and thus exerting additional downward pressure on prices.

In summary, the plan described in the NPRM should benefit end users of all telecommunications services. GSA urges the Commission to adopt the proposed plan with the constraints set forth in the NPRM.

C. Affiliates established by incumbent LECs to provide advanced telecommunications services should not be subject to access charges.

The Commission should relieve affiliates established by incumbent LECs to provide advanced telecommunications services from any obligations to pay access charges. No access charges should not be assessed on affiliates by the incumbent LECs on the basis of the number of lines or the amount of traffic interchanged. Moreover, since the Commission intends that affiliates should not be regarded as incumbent LECs,²⁴ they should not be required to levy access charges themselves.

The Commission squarely addressed the application of access charges to unbundled network elements in its May 1997 Report and Order revising the system of access charges for carriers subject to price cap regulation.²⁵ The Commission stated that it would exclude unbundled network elements from access charges.²⁶ Moreover, the Commission ruled specifically that this conclusion would apply to all incumbent LECs, not just the incumbent LECs under price cap regulation that were the primary subject of the Report and Order and the proceeding in its entirety. In view of this decision, unbundled network elements that affiliates obtain from the incumbent LECs should not be subject to access charges of any type.

²⁴ NPRM, para. 83.

²⁵ Access Charge Reform, CC Docket No. 96-262, *First Report and Order*, released May 16, 1997.

²⁶ *Id.*, para. 337.

GSA explained in comments to the Commission in response to a Notice of Inquiry last year that the application of access charges to firms providing advanced telecommunications services would unnecessarily increase the costs of the services to consumers and also reduce incentives to deploy advanced network technologies that will lead to better advanced services in the future.²⁷ The system of interstate access charges must be revised further to allow more competition where it has been most difficult — mainly for residential subscribers and rural areas — while extending the benefits of universal service to all residents. GSA urges the Commission not to expand the complexities of the interstate access charge system by including an additional set of entities in its scope.

III. THE COMMISSION SHOULD STRENGTHEN COLLOCATION REQUIREMENTS ON INCUMBENT LOCAL CARRIERS.

A. Competing carriers report that constraints on collocation are impeding their entry into local exchange markets.

More than six years ago, the Commission specified requirements on the large incumbent carriers to offer collocation to carriers who seek to locate interstate special access and switched transport facilities on a LECs' premises.²⁸ Two years ago, the Congress reinforced this requirement through legislation requiring incumbent LECs to provide for the physical location of equipment necessary for interconnection or access to unbundled network elements at the premises of a local exchange carrier, unless

²⁷ Access Charge Reform, CC Docket No. 96-262 *et al.* Comments of GSA and the United States Department of Defense, March 24, 1997, pp. 3-11.

²⁸ Expanded Interconnection with Local Telephone Company Facilities, CC Docket No. 91-141, Memorandum Opinion and Order, released June 9, 1993, *passim*; NPRM, para. 118.

technical restrictions or space limitations make virtual collocation necessary as an alternative.²⁹

In spite of these mandates, an association of competitive local carriers observes that while incumbent LECs may be offering physical collocation in name, they are actually impeding competition by restricting the types of equipment that can be placed in collocation space and by imposing substantial costs and delays on competing carriers for space and construction of collocation cages.³⁰ The NPRM seeks comments concerning the needs for additional collocation rules. In particular, the Commission seeks comments concerning the need for rules concerning the types of equipment that may be collocated and the allocation of the space that incumbent LECs make available for this equipment.³¹

B. New entrants should be allowed to collocate all types of equipment on the incumbent carriers' premises.

Incumbent LECs are currently required to permit collocation of multiplexing equipment, but not switching equipment.³² Competing providers state that this constraint is arbitrary, unnecessary and burdensome to administer.³³

Modern technology blurs the distinctions between switching and multiplexing equipment because the current practice is to integrate multiple functions in a single unit.³⁴ This practice has benefited both service providers and end users by reducing

²⁹ 47 U.S.C. § 251(c)(6), NPRM para. 120.

³⁰ NPRM, para. 121.

³¹ *Id.*, para. 131-142.

³² *Id.*, para. 128.

³³ *Id.*

³⁴ *Id.*, para. 129.

costs, promoting more efficient network design, and expanding the range of possible service offerings.³⁵

Because of the advantages of integrating these technical functions, GSA concurs with the Commission's tentative conclusion that incumbent LECs should not be allowed to restrict the types of equipment that competing carriers may collocate in order to offer advanced telecommunications services. Moreover, GSA urges the Commission to take steps necessary to eliminate the arbitrary distinction between switching and multiplexing equipment employed by competing carriers to provide all other telecommunications services.

C. Incumbent carriers should be required to offer a variety of collocation options to new entrants and their affiliates.

The NPRM reports that many potential competitors have noted that space for physical collocation cages in many LEC premises is extremely limited, and totally unavailable in an increasing number of cases.³⁶ The NPRM seeks comments on whether the Commission should establish rules to expand the opportunities for collocation.

As a representative of end users, GSA is concerned that space limitations may be impeding competition. Moreover, any existing problem may be exacerbated as incumbent LECs establish affiliates to offer advanced services. It is important to avoid congestion at the incumbent LECs' central offices and to allow as many opportunities as possible for interconnection through physical collocation.

³⁵ *Id.*

³⁶ *Id.*, para. 136.

Accordingly, GSA urges the Commission to require incumbent LECs to fully explore options for different collocation arrangements before declaring an office "full." These options would include:

- secure cabinets that facilitate sharing of cages between multiple service providers;
- elimination of minimum size constraints that cause competing providers to reserve more space than they actually require; and
- "cageless" collocation if practical.

Moreover, in providing collocation through any of these options, incumbent LECs must be held to the burden of showing that their affiliates are not receiving preferential treatment at the expense of their unaffiliated competitors.

IV. THE COMMISSION SHOULD ESTABLISH UNBUNDLING REQUIREMENTS AND STANDARDS FOR LOCAL LOOPS TO FACILITATE PROVISION OF ADVANCED SERVICES.

A. Potential competitors need access to data on the capability of loops to support xDSL.

The NPRM identifies a number of issues concerning design specifications, performance requirements, and operational standards for local loops to ensure that they are used efficiently with xDSL.³⁷ GSA will address some of the Commission's tentative conclusions regarding these issues, which are important for efficient provision of advanced telecommunications services by incumbent carriers, affiliates, and competitors.

The Commission tentatively concludes that incumbent carriers should provide requesting competitive LECs with enough detailed information concerning loops that will enable these firms to determine whether the loops are capable of supporting the

³⁷ *Id.*, paras. 151-177.

xDSL equipment that they plan to install.³⁸ Specifically, competitive LECs would require information on whether loops pass through remote concentration devices, what electronics equipment is attached, average loop length, specific electrical parameters that determine the suitability of loops for various xDSL technologies, and other loop parameters.³⁹ The Commission also seeks comments on whether this information is currently available from incumbent LECs on a timely basis in a usable form.⁴⁰

Although GSA has no information on whether the incumbent LECs are actually making this data available to their competitors, it is absolutely certain that they should be doing so. All incumbent LECs are required by statute to interconnect with competing carriers on just and reasonable rates, terms and conditions.⁴¹ In the MO&O, the Commission finds that this statutory requirement encompasses all advanced services.⁴² Plainly, it is impossible for competitors to interconnect under reasonable terms and conditions if they are not aware, in advance, of the technical specifications for the facilities that they need to employ. GSA urges the Commission to adopt regulations to ensure that this information is available to them.

B. The Commission should require unbundling of the local loops for advanced services.

The NPRM seeks comments on whether two different service providers should be permitted to offer services over the same local loop, with each provider using

38 *Id.*, para. 157.

39 *Id.*

40 *Id.*, para. 158.

41 1996 Act, Section 251(c).

42 NPRM, para. 32.

different frequencies to transport voice messages or data.⁴³ For example, xDSL technology separates a loop into a voice channel and a data channel. The loop can carry both types of traffic simultaneously. A competitive LEC may wish to provide only data service over an unbundled loop. The question arises as to whether the competitive LEC should be allowed to put a high frequency signal on the same loop as the incumbent LEC's voice signal.⁴⁴ Moreover, if the competitive LEC reserves the entire loop, may it lease the voice channel back to the incumbent or another carrier?⁴⁵

GSA urges the Commission to establish regulations that will require incumbent LECs to make voice and data functionalities available to competitors separately, considering only the need to meet electrical transmission performance guidelines discussed in the following section of these Comments. It is important to treat affiliates and unaffiliated competitors equally in this respect. Incumbent LECs should not be permitted to allow advanced services affiliates to use the "other half" of a loop, while denying that privilege to unaffiliated competitors.

The NPRM extends the issue of separating loop functionalities into "sub-loop unbundling" of physical sections of the loop plant.⁴⁶ The principal sections of loop plant usually distinguished under the term "sub-loop unbundling" are feeder plant, distribution plant, and the network interface device ("NID") on the subscriber's premises. Sub-loop unbundling permits competitive LECs to collocate at remote terminals, because they may then obtain the distribution plant and NID elements, but not the feeder plant. The NPRM tentatively concludes that incumbent LECs must

⁴³ *Id.*, para. 162.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*, para. 174.

provide sub-loop unbundling unless they can demonstrate that it is not technically feasible, or that there is not sufficient space at a remote terminal to accommodate the requesting carrier.⁴⁷

GSA concurs with this tentative conclusion. The use of sub-loop elements and access to remote terminals may be the only means for competitive LECs to provide xDSL-based services to end users whose connection to the LEC central office is provided by a digital loop carrier system.⁴⁸ Thus, if an incumbent LEC employs a digital loop carrier and refuses to allow competitive LECs access at the remote terminal, it can effectively deny entry into the local loop market by competitors. Therefore, the Commission should formulate procedures that scrutinize claims of "technical infeasibility" or "space limitations" very carefully. Again, regulators should be particularly alert to detect instances where an incumbent LEC is permitting sub-loop unbundling for an affiliate but not for its competitors.

C. The Commission should develop standards on loop spectrum management.

High speed digital transmissions may interfere with each other through electromagnetic coupling if they employ different signal formats on copper pairs in the same loop bundle.⁴⁹ Therefore, the NPRM requests comments on whether the Commission should adopt operational standards for loop spectrum management. In addition, the NPRM requests comments on the Commission's tentative conclusion that there should be uniform national standards for attachment of electronic equipment such as modems and multiplexers at the central office end of a local loop.⁵⁰

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.* paras. 159-160.

⁵⁰ *Id.*, para. 163.

GSA has addressed the needs for national guidelines concerning technical standards in comments submitted to the Commission in other proceedings. For example, in its comments addressing the need for standards and reporting requirements for operational support systems, GSA explained that national guidelines are especially important for end users such as FEAs, who require local telecommunications services in almost all communities in the nation.⁵¹ The FEAs must be able to anticipate uniform service quality in every state, as well as timely invoices and uniform ordering formats, independent of interconnection agreements or other arrangements between local exchange carriers.

Similarly, GSA urges the Commission to adopt national guidelines covering spectrum management and equipment at the end of the loop. While some state regulators are also expanding standards for local exchange services, national guidelines would ensure a large measure of consistency. Moreover, some jurisdictions may elect not to develop comprehensive guidelines. GSA urges the Commission to specify requirements that would be viewed as the minimum acceptable level on a mandatory basis after an initial period, such as one year. The Commission's rules would be employed as the default in states that had not acted to adopt a similar set of requirements within that period.

⁵¹ Performance Measurements and Reporting Requirements for Operational Support Systems, Interconnection, and Operator Services and Directory Assistance, CC Docket No. 98-56, RM-9101, Comments of GSA, p. 7.

V. CONCLUSION

As a major user of telecommunications services, GSA urges the Commission to implement the recommendations set forth in these Comments.

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September 25, 1998

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I, Mar Yarguan, do hereby certify that copies of the foregoing "Comments of the General Services Administration" were served this 25th day of September, 1998, by hand delivery or postage paid to the following parties.

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